



# UNITED STATES PATENT AND TRADEMARK OFFICE

*mn*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,861	04/13/2006	Fouad El Khaldi	05-681	2617
34704 7590 06/27/2007 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER DAY, HERNG DER	
			ART UNIT 2128	PAPER NUMBER
			MAIL DATE 06/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/552,861

Applicant(s)

EL KHALDI ET AL.

Examiner

Herng-der Day

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-3 have been cancelled. Claims 4-6 have been examined and rejected.

#### *Priority*

2. Acknowledgment is made of Applicants' claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy of the priority document for PCT/FR2004/000891, filed on April 9, 2004, has been received in this National Stage application from the International Bureau. The priority date of a foreign application is April 11, 2003.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Hillmann et al., U.S. Patent Application Publication 2003/0167097 A1, published September 4, 2003.

- 4-1. Regarding claim 4, Hillmann et al. disclose a parametric reverse engineering method for designing tools comprising the steps of:

importing an existing model including a design of an existing tool for an existing part (to use the geometrical information and data related to the tool (die, binder, punch) and the sheet

Art Unit: 2128

metal part, handled and generated by the herein described invention, as input data for tooling, paragraph [0032], lines 1-6);

producing a template for the existing tool (the complete tool surfaces, paragraph [0027], lines 1-6);

separating the existing tool from the part (Extraction of the individual tool components from the generated geometries, paragraph [0007], lines 27-28);

cataloguing and saving in a numerical database structured in the form of a catalogue the creation of the existing tool using section lines and characteristic lines (The concept of the characteristic lines can also be transferred to profile parameters, paragraph [0027], lines 1-6);

removing the existing part (Extraction of the individual tool components from the generated geometries, paragraph [0007], lines 27-28);

parameterising the template of the existing tool by creating a parametric profile on section lines and characteristic lines (Parametric creation of the part tools, paragraph [0027], lines 1-11);

importing a new part (A changing of the addendum, paragraph [0027], lines 13-15);

making the parametric template correspond to the new part (entails the corresponding change of the part tools, paragraph [0027], lines 13-15); and

creating a new tool for the new part (a new tool geometry and an appertaining consistent geometry and process model for the simulation are created, paragraph [0031], lines 9-12).

**4-2.** Regarding claim 5, Hillmann et al. further disclose wherein the step of parameterising the template is carried out automatically (the effort for the preparation of alternative simulations,

Art Unit: 2128

whether manual or *carried out automatically* within an optimization loop, can be significantly reduced, paragraph [0031], lines 5-9).

4-3. Regarding claim 6, Hillmann et al. further disclose wherein the step of parameterising the template is carried out interactively (the effort for the preparation of alternative simulations, whether *manual* or carried out automatically within an optimization loop, can be significantly reduced, paragraph [0031], lines 5-9).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Reference to Thomas et al., U.S. Patent 7,024,272 B2 issued April 4, 2006, and filed February 5, 2003, is cited as disclosing a method for virtual machining.

Reference to Manuel et al., U.S. Patent Application Publication 2004/0091734 A1, published May 13, 2004, and filed November 7, 2002, is cited as disclosing a method for creating a tool.

Reference to Ananth et al., U.S. Patent Application Publication 2005/0028133 A1, published February 3, 2005, and filed August 2, 2004, is cited as disclosing a method for rapid design, prototyping, and implementation of virtually any task performance system or device.

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Art Unit: 2128

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day  
June 21, 2007

*H.D.*

*F.F.*  
FRED FERRIS  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100